Abstract

A thermal monitoring system for use with a tire is provided. The system includes one or more thermal sensors that are carried by a vehicle. One of the thermal sensors may produce a first sensor output signal that is representative of the temperature of a first location on the tire. Additionally, a second sensor output signal may be produced that is representative of the temperature of a second location on the tire. A signal processing device is included that receives the first and second sensor output signals. The signal processing device produces a processing device output signal that is representative of a potential damage condition of the tire. This signal is produced in response to a particular temperature difference between the first and second locations as indicated by the first and second sensor output signals. An indication device receives the processing device signal and indicates to a user of the vehicle that the tire is experiencing a potential damage condition.